University of Porto

Faculty of Psychology and Educational Sciences

PSYCHOLOGICAL CONSTRUCTS IN PRACTITIONERS AND NON PRACTITIONERS OF MEDITATION, REIKI AND YOGA

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june 2016

Dissertation presented for the Integrated Master's in Psychology, Faculty of Psychology and Educational Sciences of University of Porto, supervised by Professor ***Susana C. Marques*** (F.P.C.E.U.P.)

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Acknowledgements

To Professor Susana C. Marques for the unconditional support, guidance, trust and motivation during the entire elaboration of this project. Thank you for making me feel I could do a scientific and relevant job by following your orientations and working on something that I love. The security I felt being supervised by you is indescribable.

To my family for being my biggest supporter in everything I do.

To Joana for becoming a crucial pillar for me during this academic year and inspiring me to be a better person and a better future professional in Psychology.

To Sandra for being always by my side and understanding me like no one does.

To Beta, Sara, Ana, Lígia, Anabela, Luciana, Daniela and Nuno for being a constant breath of fresh air in my life and making it so much easier just by being in it.

To Andreia, Beatriz, Cláudia, Cristiana, Helena, Mariana and Marisa for the beautiful family that we built, full of love, joy and support.

To Joana and Teresa for the incredible teamwork, funny moments and wonderful friendship.

To Doctor Patrícia Lopes for being one of my role models in Psychology, and being such a positive and significant influence during this academic year.

To Flor da Vida, PazPazes, Fisiogarcia, CC Clínica, Alice, Paulo, Maria, Ana, Mónica, Mariana and my family for being so helpful with the distribution of the questionnaires, contributing for the making of this study.

To all the participants that agreed to be part of this study, and all the people who let my study achieve even more people.

To all the people that congratulated me for studying something that I love and motivated me even more to give my best.

Thank you all for being with me during this journey. I am blessed.

Resumo

O presente estudo tem como objetivo explorar a relação entre esperança, saúde mental, satisfação com a vida, bem-estar espiritual e autoestima em praticantes e não praticantes de modalidades de Medicina Complementar e Alternativa (CAM). Uma amostra de 345 adultos portugueses, com idades compreendidas entre os 18 e os 70 anos, completaram as versões portuguesas da Escala da Esperança, Inventário de Saúde Mental, Escala de Satisfação com a Vida, Questionário de Bem-estar Espiritual e Escala da Autoestima. 50.1% dos sujeitos eram praticantes de meditação, reiki e/ou yoga (grupo praticante), e 49.9% não se encontravam envolvidos em modalidades de CAM (grupo não praticante). O grupo praticante revelou valores de bem-estar espiritual e satisfação com a vida significativamente mais elevados comparativamente com o grupo não praticante. O grupo praticante avaliou ainda a sua saúde como sendo significativamente melhor que o grupo de não praticantes. As implicações dos resultados são discutidas com referência a estudos anteriores, em termos de orientações práticas e investigação futura.

Palavras-Chave: esperança, meditação, saúde mental, reiki, satisfação com a vida, autoestima, bem-estar espiritual, yoga

Abstract

The current study explores the relationship between hope, mental health, satisfaction with life, spiritual well-being and self-esteem in practitioners and non practitioners of Complementary and Alternative Medicine (CAM) modalities. A sample of 345 Portuguese adults, aged 18 to 70, completed the Portuguese versions of the Hope Scale, Mental Health Inventory-5, Satisfaction With Life Scale, Spiritual Well-being Questionnaire and Self-esteem Scale. 50.1% of the subjects were practitioners of meditation, reiki and/or yoga (practitioner group), and 49.9% were not involved in CAM modalities (non practitioner group). The practitioner group revelead higher spiritual well-being and satisfaction with life than the non practitioner group. Furthermore, the practitioner group evaluated their own health as significantly better than non practitioners. The implications of the findings are discussed with reference to prior studies and for future research.

Keywords: hope, meditation, mental health, reiki, satisfaction with life, self-esteem, spiritual well-being, yoga

Introduction

The way that we culturally concetualize well-being and healthcare has changed over the years. Integrative medicine examplifies this cultural shift, once it is a new paradigm of healthcare that takes into consideration a wide range of factors that affect people's life, such as spiritual and psychosocial dimensions, focusing on whole-person care. Being seen as the future of the medicine, it combines conventional interventions with complementary and alternative therapies (Duke Center for Integrative Medicine [DCIM], 2006).

Complementar and Alternative Medicine (CAM) comprises a group of medical and healthcare systems, practices and products that are not generally considered part of the conventional medicine (Tabish, 2008). People often use the terms "alternative" and "complementary" as indistinguishable medical approaches, although they refer to two distinct concepts. If a non-mainstream practice is used in combination with conventional medicine, it is classified as complementary medicine. On the other hand, when a non-mainstream practice is used instead of conventional medicine, it is classified as alternative medicine. True alternative medicine is uncommon because most of the people use non-mainstream approaches along with conventional therapies (National Center for Complementary and Integrative Health [NCCIH], 2015).

Several CAM modalities have been used for thousands of years and many of them are widely accepted by the public for the perceived benefits in promoting health and wellness (Barnett & Shale, 2012). The use and interest in CAM modalities have been increasing over time. In 2007, almost 4 out of 10 adults from United States had used CAM therapy in the previous 12 months (Barnes, Bloom, & Nahin, 2008). However, it seems to be difficult to find a consensual and specific set of identified CAM therapies (Wieland, Manheimer, & Berman, 2011). The CAM modalities included in this article (meditation, reiki and yoga) are presented, among others, in a national survey conducted for the National Institutes of Health (Barnes et al., 2008). Yoga and meditation have been widely studied (NCCIH, 2015). On the other hand, there are very few high-quality studies about Reiki (Thrane & Cohen, 2015).

The word "meditation" is derived from the Latin *meditari* that means "to engage in contemplation or reflection". This mind and body practice is composed by a group of techniques, most of which originated in ancient religious and spiritual traditions (NCCAM,

2015). Meditation has been conceptualized in various ways and there is not a consensual definition of it. However, all meditation techniques may be grouped into two basic approaches: concentrative meditations and mindfulness meditations. In concentrative meditations, individuals learn to focus their attention, normally on a single element (a sound, image or sensation) in order to calm down the mind and achieve greater awareness. On the other hand, mindfulness meditation involves increased awareness of the present moment, more openess to the continuous thoughts, images, emotions and sensations without identifying oneself with them (Hussain & Bhushan, 2010). Meditation has infiltrated our society, being often and widely used in medicine, psychology, education and self-development (Goleman, 1988). People may meditate to increase calmness and relaxation, to improve psychological balance, to cope with ilness or to promote overall health and well-being (NCCAM, 2016). Meditation was proved to predict declines in mood disturbance and stress, over and above the effects of changes in physical symptoms (Brown & Ryan, 2003). Meditative techiques showed to be effective in enhancing psychological well-being, positive affect, satisfaction with life and self esteem (Nathawat & Gupta, 2011). Sometimes people look for purely physical solutions to their health problems. Meditation may be harmonious and emotionally nourishing, contributing to total health. For instance, if we take pills for high blood pressure, they are unlikely to improve chronic pain or insomnia. On the other hand, if we meditate to lower blood pressure, the effect is less precise and direct but it goes further to a more profound cause: an anxious mind (Harrison, 2006). Both health care professionals and lay people accepted meditation as a valuable strategy for healing mental and physical disorders (Hussain & Bhushan, 2010). However, meditation should not replace conventional care when dealing with a medical problem (NCCIH, 2016).

Yoga is a holistic system of mind-body practices that include a wide variety of techniques including meditation, breathing exercises, sustained concentration and physical postures, aiming to develop strength and flexibility (Khalsa, Shorter, Cope, Wyshak, & Sklar, 2009). Originally developed in India, yoga is considered one of the anciest forms of integrative medicine (Wainapel, Rand, Fishman, & Halstead-Kenny, 2015), being known to be an effective and valuable tool to overcome various physical and psychological problems (Jadhav & Havalappanavar, 2009). Regular yogic practices, adopting and implementing the principals of philosophy of yoga in everyday life were proved to improve the subjective feelings of well-being (Malathi, Damodaran, Shah, Patil, &

Maratha, 2000) and enhance expectation achievement congruence and trascendence (Jadhav & Havalappanavar, 2009).

Reiki is an ancient form of Japanese healing, being used for a variety of psychologic and physical symptoms (vanderVaart, Gijsen, Wildt, & Koren, 2009). The reiki practitioner uses a series of established hand positions as a way for allowing the energy to move freely between the bodies (Barnett & Shale, 2012). Energy medicine is practiced in various medical settings, such as rehabilitation, palliative care, cancer care and home care, being administered to people of all ages, regardless of whether they are healthy or have illnesses (Hart, 2012). Biofield energy therapies like reiki are controversial mainly because of the lack of rigorous scientific data that support or refute their efficacy, and because biofields currently cannot be measured (Miles & True, 2003). Studies suggested that reiki may be beneficial for enhancing overall mood, managing stress and increasing relaxation (Bowden, Goddard, & Gruzelier, 2011; Elaine & Bukowski, 2015; Wardell & Engebretson, 2001). Moreover, Bullock (1997) suggested that reiki may be a valuable complement in supporting patients in their end-of-life journey, enhancing the quality of life of their remaining days. Reiki therapy has been explored in a wide range of populations, including cancer patients, community dwelling adults and surgical patients. Sample size is one of the most common dificulties in studies involving this practice. Furthermore, because the number of studies is small, the interventions differ from each other and the populations are different, it is difficult to make generalizations and recommendations from these studies (Thrane & Cohen, 2015).

Approximately 20 years of systematic research has illustrated the importance of hope in understanding human development and flourishing (Marques, Lopez, Fontaine, Coimbra, & Mitchell, 2014). In the conceptualization of hope, three concepts may be detailed – goals, pathways and agency. Human actions seem to be goal directed and goals may vary in terms of temporal frame and specificity. Goals remain as unanswered calls without the necessary means to reach them. Pathways thinking refers to the conceived ways to achieve specific goals. Agency thinking, on the other hand, is conceived as the motivational element of hope, consisting on the belief in the ability to successfully use the pathways. Hope needs both pathways and agency thought (Snyder, 2002). These two elements are positively related, iterative and complementary (Snyder et al., 1991). Research has linked high hope to many positive outcomes, including life satisfaction, social competence and self-worth, work, academic and sports performance, health and longevity (e.g., Berg, Rapoff, Snyder, & Belmont, 2007; Ciarrochi, Heaven, & Davies,

2007; Gilman, Dooley, & Florell, 2006; Snyder et al., 1997). Moreover, hope reflects a psychological protective strength towards negative life events (Valle, Huebner, & Suldo, 2006; Marques, in press)

Not only hope, but also life satisfaction is a salient dimension of individual adjustment and level of functioning. Life satisfaction referes to a cognitive and judgemental process that depends upon a comparison of one's circumstances with what is considered to be an appropriate standard (Diener, Emmons, Larsen, & Griffin, 1985). Standards are used as the basis for judging conditions (Diener, 1984). Life satisfaction represents the cognitive dimension of a person's evaluative reactions to his or her life, i.e., subjective well-being (Diener & Diener, 1995). High life satisfaction in adults relates to positive outcomes in intrapersonal, interpersonal, vocational, physical and psychological health, and educational arenas (Huebner, 2004). For e.g., adults with high levels of life satisfaction have, in general, better self-esteem, positive self-concept and purpose in life, and participation in meaningful, pro-social activities (e.g., Diener & Diener, 1995; Lu et al., 2015). On the other hand, low levels of life satisfaction have been linked with negative outcomes, such as depression, anxiety, social stress (Huebner, Funk & Gilman, 2000b), stressful life events, and externalizing and internalizing behavior (McKnight, Huebner, & Suldo, 2002).

Spiritual health is considered a dimension of the individual's overall health and well-being, englobing several dimensions of health (i.e., the physical, mental, emotional, social and vocational) (Fisher, 1998). The model of spiritual health and well-being concetualized by Fisher (1998) asserts the relationships people have with themselves (purpose and life values), with others (quality and depth of relationships), with the environment (the notion of unity with the environment; the sense of wonder and contemplation) and/or with a Transcendent Other (cosmic force; transcendent reality; or God – through faith). Spiritual health can be considered thereby as the combined effect of spiritual well-being in each of the domains embraced by a person. Spiritual well-being was proved to be positively related with happiness and psychological well-being (Gomez & Fisher, 2003). Moreover, Jafari et al. (2010) suggested that clinical and health specialists should emphasize more on the spiritual variables in order to promote health and life satisfaction in patients.

Self-esteem refers to an individual's evaluation of his or her value, reflecting the person's affective judgements about the self (Leary & Baumeister, 2000). Self-esteem is an important and well established concept in the field of mental health. For example, low self-

esteem has repeatedly been reported as a contributing factor to mental health problems including depression, anxiety, conduct/antisocial personality disorder, and suicidal ideation (Boden, Fergusson, & Horwood, 2008; Newbegin & Owens, 1996; Schroevers, Ranchor, & Sanderman, 2003).

Accordingly to the World Health Organization (WHO, 2005), mental health is considered as an integrative part of total health, consisting more than the absence of mental illness, and being deeply connected with physical health and behaviour. Mental health is a "state of well-being in which the individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and is able to make a contribution to her or his community" (WHO, 2014). Mental health problems have been related with compromised life satisfaction (McKnight et al., 2002) and hope is modestly and inversely related to mental health problems and psychopathology (Hagen, Myers, & Mackintosh, 2005; Marques, Pais-Ribeiro, & Lopez, 2011; Snyder et al., 1997; Valle, Huebner, & Suldo, 2004).

In regard to socialdemographic characteristics, several studies (e.g., Loge & Kaasa, 1998; Strand, Dalgard, Tambs, & Rognerud, 2003; Sullivan & Karlsson, 1998) reported poorer subjective mental health status among women, among the unemployed, among the low educated and among the single/not married or not living in partnerships/cohabitants, poorer hope among the unemployed, the low educated and among the divorced and widowed (e.g., Marques, in press), and lower life satisfaction among the unemployed, the low educated and among the divorced and widowed (e.g., Diener & Diener, 1995).

In the current study, hope, mental health, satisfaction with life, self-esteem and spiritual well-being were analised and compared between practitioners and non practitioners of meditation, reiki and yoga. The current study is relevant for many reasons. First, due to the increasing interest and use of CAM modalities around the world, it is an actual and relevant topic to investigate. Second, because of the lack of empirical studies with CAM modalities, especially in Portuguese samples, and the third reason links with the dearth of research world while examining the relationships between CAM activities and some of the target psychological constructs in this study. Further, the inclusion of a non-practitioner group will allow comparisons and have the potential to enhance the meaningfulness of the findings.

Based on the past studies, we expect moderate correlations between hope, mental health, life satisfaction, spiritual well-being and self-esteem for the total sample. We also expect lower mental, hope and life satisfaction among the lower in educational level and

among the divorced and widowed and lower mental health for women than man. Given the links and importance established by previous research on the benefits associated with the practice on CAM modalities it is expected to found moderate relationships between hope, mental health, satisfaction with life, self-esteem and spiritual well-being inside the practitioner group and higher hope, mental health, satisfaction with life, self-esteem and spiritual well-being for the practiotioner group than the non-practitioner group. Additionally, based on the previous research it is expected that the practitioner group reveal greater self-evaluation of their own health than the non practitioner group.

Empirical Study

1. Method

1.1. Participants.

The sample consists of 345 Portuguese participants, 50.1% involved in meditation, reiki and/or yoga (practitioner group), and 49.9% not involved in this type of activities (non practitioner group). The total sample was aged 18 to 70 (M = 39.77; SD = 11.78). In the practitioner group, subjects were aged 19 to 70 (M = 41.24; SD = 12.34) and 81.5% of them were female. In the non practitioner group, participants were aged 18 to 63 (M = 38.31; SD = 11.04) and 70.3% of them were female. In the practitioner group, 32.9% of the subjects practiced only yoga, 11.6% only reiki and 8.7% only meditation. 26.6% of the practitioners practice both meditation and reiki, 11% both meditation and yoga and 8.1% all the activities.

1.2. Measures.

The current study employed translated and validated measures of the target constructs (hope, mental health, satisfaction with life, spiritual well-being and self-esteem). Demographic variables include: age, gender, marital status and years of schooling. The battery of questionnaires (cf. Appendix) also included a question to evaluate the perception of health status ("How do you evaluate your health?") using a 5-point Likert scale, ranging from 1 (*weak*) to 5 (*great*), which is consistent with many previous studies that evaluate the perception of health status (e.g., Pais-Ribeiro, Pedro, & Marques, 2012).

Hope Scale. The Hope Scale (HS) was developed by Snyder et al. (1991) and it is composed by 12 items that measure the trait aspect of hope in individuals aged 16 and older. Four items measure Agency, four items measure Pathways, and the four remaining are distracter items. Response options range from 1 (*definitely false*) to 8 (*definitely true*). In previous studies with Portuguese samples the total scale revealed a high level of internal consistency (Cronbach's α = .86), as did the Agency (α = .79) and Pathways (α = .81) subscales (Marques et al., 2014). In the current study, the Cronbach alpha for the combined hope scale was .77, and the Cronbach alphas for the Agency and Pathways subscales were .79 and .81, respectively.

Spiritual Well-being Questionnaire. Gomez & Fisher (2003) developed the Spiritual Well-being Questionnaire (SWBQ) with 20 items organized in personal, communitary, environmental and transcendental subscales. Using a 5-point Likert scale, ranging from 1 (*very little*) to 5 (*very much*), participants report the extent to what they feel they are developing each of SWBQ indicators. Each domain's score is based on the mean of the answers to the items of each subscale. The global measurement of spiritual well-being results of the mean of the four domains. The Portuguese version of the SWBQ (SWBQp) revealed high levels of internal consistency, with a reported Cronbach's alpha coefficient of .88 in the global domain, .84, .89, .74 and .75 in the environmental, transcendental, communitary and personal domains, respectively. (Gouveia, Marques, & Pais-Ribeiro, 2009; Gouveia, Pais-Ribeiro, & Marques, 2012). In the current study, the SWBQp revealed high internal consistency (Cronbrach's α = .93), as did the environmental (α = .91), transcendental (α = .93), communitary (α = .79) and personal (α = .84) subscales.

Mental Health Inventory-5. Mental Health Inventory (MHI) is a 38-item measure of psychological distress and well-being, developed by Veit and Ware (1983) for use in general populations. The MHI-5 is a short version of the MHI that includes the items 11, 17, 19, 27 and 34 of the larger version. The questions evaluate the individual's mood over the past month, measuring the psychological well-being and the absence of psychological distress. The answers are given in a 6-point rating scale, ranging from 1 (*all the time*) to 6 (*none of the time*), and scores may range drom 6 to 30, being higher scores indicative of better mental health. The MHI-5 has been validated for Portuguese adults (Pais-Ribeiro, 2001) with a reported Cronbach's alfa of .87. In the current study, MHI-5 revealed a Cronbach's alpha coefficient of .83.

*Satisfaction With Life Scal*e. The Satisfaction With Life Scale (SWLS; Diener et al., 1985) is composed by 5 items that measure a person's overall assessment of their life. Using a 7-point Likert scale, ranging from 1 (*strongly disagree*) to 7 (*totally agree*), participants report the extent to which they agree with each judgement about their own lives. Higher scores reveal higher life satisfaction and scores may range between 5 (lowest life satisfaction) and 35 (highest life satisfaction). Previous studies using the SWLS in Portugal (Neto, Barros, & Barros, 1990) have demonstrated an acceptable internal consistency with a Cronbach α coefficient of .78. In the current study, Cronbach α coefficient for the SWLS was .80.

Self-esteem Scale. The Rosenberg Self-esteem Scale (RSES; Rosenberg, 1965) measures global self-worth through 10 items to access the positive and negative feelings

about the self. All items are answered using a 4-point Likert scale, ranging from 1 (*strongly agree*) to 4 (*strongly disagree*). 5 of the items are expressed in the positive form while the other 5 are negatively formulated. The respondents indicate the degree to which each item reflects their self-attitudes. The total score of self-esteem vary between 10 and 40 and higher scores correspond to higher values of self-esteem. The RSES has been validated for Portuguese adults (Santos & Maia, 2003) with a reported Cronbach's alfa of .83. In the current study, the Cronbach's alpha coefficient of this instrument was .86.

1.3. Procedures.

Before the recruitment of participants, the current study received approval from the Comission of Ethics of the Faculty of Psychology and Educational Sciences of University of Porto. All the participants (N = 345) signed a declaration of informed consent in which the general purposes of the study were exposed and the confidentiality of the data processing process was assured. The participants were instructed to complete the demographic questions and the psychological scales included in the questionnaire. Participants were selected by convenience. Regarding the practitioner group, the distribution of the questionnaires was assured by meditation, reiki and yoga instructors (N = 8 instructors). Participants took the questionnaire home and gave it back to the instructor later. Regarding the non-practitioner group, questionnaires were mostly delivered in companies.

2. Results

2.1. Intercorrelations of and between the target variables in the total sample.

Statistical analyses were conducted using SPSS version 20. Table 1 presents the means, *SD*s, internal consistency coefficients, and intercorrelations between the instruments for the total sample. Correlational analysis was used to inspect the relationships between the variables in study.

"Insert Table 1"

The intercorrelations of and between the target variables for the total sample are significant, with the exception for the (lack of) relationship between mental health and the subscale of environmental of spiritual well-being.

Specifically, hope was positively and strongly associated with pathways subscale and agency subscale. The correlation was positive and moderate to low between hope and satisfaction with life, global spiritual well-being, spiritual well-being personal subscale and self-esteem. Hope was positively but weakly associated with mental health, and with communitary, environmental and transcendental spiritual well-being subscales. Pathways subscale was positively and moderately associated with agency subscale, and moderately to low with spiritual well-being personal subscale and self-esteem. Also, pathways subscale exhibited a positive but weak correlation with mental health, satisfaction with life, global spiritual well-being and with communitary, environmental and transcendental spiritual well-being subscales. Regarding to agency subscale, it was positively and moderately to low associated with satisfaction with life, global spiritual well-being, spiritual well-being personal subscale and self-esteem. Agency subscale was positively but weakly associated with mental health and communitary, environmental, and transcendental spiritual well-being subscales. Mental health exhibited a positive and moderate correlation with satisfaction with life, spiritual well-being personal subscale and self-esteem. On the other hand, the correlation was positive and weak between mental health and global spiritual well-being and communitary, and transcendental spiritual well-being subscales. Life satisfaction was positively and moderately associated with self-esteem and spiritual well-being personal subscale. However, satisfaction with life exhibited a positive and weak correlation with global spiritual well-being and communitary, environmental and transcendental subscales of spiritual well-being. Global spiritual well-being showed to be positively and strongly related with its personal, communitary, environmental and transcendental subscales. Furthermore, spiritual well-being was positively and moderately associated with self-esteem. Regarding to the spiritual well-being personal subscale, it was positively and strongly associated with communitary subscale, moderately associated with environmental and transcendental subscales and weakly associated with self-esteem. Spiritual well-being communitary subscale was positively and moderately associated with the environmental and transcendental subscales and weakly associated with self-esteem. Spiritual well-being environmental subscale exhibited a positive and moderate correlation with transcendental subscale and a positive and weak with self-esteem. Spiritual well-being transcendental subscale and self-esteem were positively and moderately to low associated.

2.2. Descriptive statistic analysis of the variables in study: comparison between gender.

Mean scores, standard deviations and differences between gender on the variables of interest are presented in Table 2.

"Insert Table 2"

Females revealed higher global spiritual well-being (M = 75.77, SD = 11.02, p < .05) than males (M = 72.05, SD = 10.84, p < .05). Females exhibited higher spiritual well-being in the environmental (M = 19.65, SD = 3.58, p < .05) and transcendental (M = 17.69, SD = 4.56, p < .05) subscales than males (M = 18.32, SD = 3.60, p < .05 for environmental and M = 16.32, SD = 4.89, p < .05 for transcendental subscales).

Additionally, the relationships between scores of the psychological variables in study and age, marital status and years of schooling were considered. Main effects for marital status were not found and the correlation with age and years of schooling was not significant.

2.3. Intercorrelations of and between target variables in the practitioner and non practitioner groups.

Table 3 presents the intercorrelations between the variables in study for the practitioner and non practitioner groups.

"Insert Table 3"

The intercorrelations of and between the target variables for the practitioner group are significant, with two exceptions: the (lack of) relationships between the subscale of environmental of spiritual well-being and mental health and with life satisfaction. For the non practitioner group, the intercorrelations of and between the target variables are significant, with some exceptions: the (lack of) relationships between the pathways component of hope and mental health; the (lack of) relationships between mental health and the communitary subscale of spiritual well-being; the (lack of) relationships between the environmental subscale of spiritual well-being and hope, the pathways component of hope, mental health and life satisfaction; and the (lack of) relationships between the transcendental subscale of spiritual well-being and the pathways component of hope, mental health and life satisfaction.

2.3.1. Practitioner group.

Specifically, in the practitioner group, hope was positively and strongly associated with hope pathways and agency subscales. Hope exhibited a positive and moderate correlation with satisfaction with life, global spiritual well-being, spiritual well-being personal and communitary subscales and self-esteem and a positive but weak correlation with mental health and spiritual well-being environmental and transcendental subscales. Regarding to hope pathways subscale, it was positively and moderately associated with hope agency subscale, global spiritual well-being, spiritual well-being personal subscale and self-esteem and positively but weakly correlated with mental health, satisfaction with life and spiritual well-being communitary, environmental and transcendental subscales. Regarding to hope agency subscale, it was positively and moderately associated with satisfaction with life, global spiritual well-being, spiritual well-being personal and communitary subscales and self-esteem. The agency subscale was positively but weakly associated with mental health, spiritual well-being environmental and transcendental subscales.

Mental health was positive and moderately to low associated with satisfaction with life, global spiritual well-being, spiritual well-being personal subscale and self-esteem, but weakly correlated with spiritual well-being communitary and transcendental subscales. Life satisfaction was positive and moderately correlated with global spiritual well-being, spiritual well-being personal subscale and self-esteem, but weakly correlated with the communitary and transcendental subscales of the spiritual well-being.

Regarding spiritual well-being and its dimensions, Table 3 shows that global spiritual well-being was positively and strongly associated with all the dimensions (personal, communitary, environmental and transcendental subscales) and positively and moderately associated with self-esteem. Regarding to spiritual well-being personal subscale, it was positively and strongly associated with spiritual well-being communitary subscale and moderately associated with the environmental and transcendental subscales, as well as self-esteem. Spiritual well-being communitary subscale was positively and moderately associated with the environmental and transcendental subscales, despite being weakly correlated with self-esteem. Spiritual well-being environmental subscale was positively and moderately associated with the transcendental subscale and weakly associated with self-esteem. Finally, spiritual well-being transcendental subscale and self-esteem were positively and weakly associated.

2.3.2. Non practitioner group.

In the non practitioner group, hope was positively and strongly associated with its pathways and agency subscales, moderately associated with satisfaction with life, spiritual well-being personal subscale and self-esteem. Hope was positively but weakly associated with mental health, global spiritual well-being and spiritual well-being communitary and transcendental subscales. Hope pathways subscale exhibited a positive and moderate correlation with hope agency subscale, althought it was weakly associated with satisfaction with life, global spiritual well-being, spiritual well-being personal and communitary subscales and self-esteem. Regarding to the hope agency subscale, it was positively and moderately associated with satisfaction with life, spiritual well-being personal subscale and self-esteem, but weakly correlated with mental health, global spiritual well-being, spiritual well-being communitary, environmental and transcendental subscales. Mental health was positively and moderately associated with satisfaction with life, spiritual well-being personal subscale and self-esteem and weakly correlated with global spiritual well-being. Regarding satisfaction with life, it was positively and moderately associated with self-esteem, despite being weakly correlated with global spiritual well-being, spiritual well-being personal and communitary subscales.

Global spiritual well-being was positively and strongly associated with its personal, communitary, environmental and transcendental. Furthermore, global spiritual well-being was positively and moderately associated with self-esteem. Spiritual well-being personal subscale exhibited a positive and moderate correlation with communitary, environmental and transcendental subscales and with self-esteem. Spiritual well-being communitary was positively and moderately associated with environmental subscale but positively and weakly correlated with transcendental subscale and self-esteem. Spiritual well-being environmental subscale exhibited a positive and moderate correlation with the transcendental subscale despite being positively and weakly correlated with self-esteem. Finally, spiritual well-being transcendental subscale and self-esteem were positively and weakly associated.

2.4. Descriptive statistic analysis of the variables in study: comparison between the practitioner and non practitioner groups.

Mean scores, standard deviations and differences between the practitioner and non practitioner groups on the variables of interest are presented in Table 4. Independent sample T-test was used to examine differences between groups.

"Insert Table 4"

The practitioner group exhibited higher life satisfaction, global spiritual well-being and higher spiritual well-being in the personal, communitary, environmental and transcendental subscales of spiritual well-being than the non practitioners. The practitioner group evaluated their health as significantly better (M = 3.69; SD = 8.04; $p < .001$) than non practitioners (M = 3.11; SD = 7.44; $p < .001$).

3. Discussion

This study extended beyond prior studies by evaluating the relationships between hope, mental health, life satisfaction, spiritual well-being and self-esteem in a sample of practitioners of CAM modalities (i.e., meditation, reiki and yoga) in comparison with a sample of non-practitioners from the general community. In the consideration of the global sample (i.e., the practioner plus the non-practitioner group), and as expected, the variables in study were all positively correlated (with the exception for the relationship between mental health and environmental subscale of spiritual well-being), similar to past research results (e.g., Baumeister, DeWall, Ciarocco, & Twenge, 2005; Dew & Huebner, 1994; Gilman et al., 2006; Snyder et al., 1991). These findings suggest there are commonalities among the constructs but, given the magnitude of the correlations, each construct is distinct in what it was measuring. However, as research moves forward, it will be important to further consider the nature of these commonalities (e.g., with longitudinal designs). Another interest finding is that females revealed higher global spiritual well-being and higher spiritual well-being in the environmental and transcendental subscales, than males. This information is, from our best knowlege, new and should be considered and further explored in future research. Surprisingly, age, marital status and years of schooling were not related with any of the psychological variables in study which is somewhat contradictory in regard to previous research (e.g., Diener & Diener, 1995; Loge & Kaasa, 1998; Marques, in press; Strand, et al., 2003; Sullivan & Karlsson, 1998).

Similar for the total sample, we found significant correlations between the psychological variables for the practitioner group (with the exceptions for the relationships between the subscale of environmental of spiritual well-being and mental health and with life satisfaction). However, for the non-practitioner group, we found non-significant relationships between some of the psychological variables, such as between hope pathways

subscale and mental health; between mental health and the communitary subscale of spiritual well-being; between the environmental subscale of spiritual well-being and hope, the pathways component of hope, mental health and life satisfaction; and between the transcendental subscale of spiritual well-being and the pathways component of hope, mental health and life satisfaction. In order to further explore why these two groups have different correlations (and magnitudes) between the variables in study, we further explore the differences between the practitioner and non practitioner groups on the target variables. We found that the practitioner group exhibited higher life satisfaction, global spiritual well-being and higher spiritual well-being in the personal, communitary, environmental and transcendental subscales of spiritual well-being than the non practitioner group.

Additionally, the practitioner group evaluated their health as significantly better than non practitioners. These results are in line with previous research (e.g., Barnett & Shale, 2012; Jadhav & Havalappanavar, 2009; Malathi et al., 2000) which pointed out the importance of CAM modalities to improve the subjective feelings of well-being, enhance expectation achievement congruence and trascendence and to perceived benefits in promoting health and wellness (Barnett & Shale, 2012). These results may be very relevant for future research and implications for practice. For example, in cases of diminished life satisfaction, spiritual well-being or even in cases of perception of low health status it could be beneficial the practice of the CAM modalities evaluated in this study.

In evaluating our conclusions, several limitations of the current study are noteworthy. First, although large and diverse in terms of age and gender, the sample is not nationally representative, thus limiting the generalizability of the findings. Future research would benefit from larger and more representative samples to determine the generalizability of the findings. Also, the fact that the study relied on self-report measures and multimethod studies could enhance the meaningfulness of the findings (Diener, 1994). Moreover, also, we cannot disentangle what is cause and what is effect, given the present research design. Future research of a longitudinal and/or experimental nature is necessary to determine the directionality of effects, but also to track any changes over time and to control for the impact of extraneous variables. Additionally, it would be important to analyze differences between the three CAM modalities included in the present study in regard to the psychological variables considered in this study (i.e., meditation, reiki and yoga) and if groups that practice 1, 2 or the 3 modalities are significantly different for the varibles of interest, in order to better understand distinctions and to better design future implications about which modality (or modalities) could be more beneficial (e.g., for

health perception, life satisfaction, spiritual well-being). However, because of the low and very distinct number of participants in each modality, we have this possibility and comparison between modalities limited. Finally, we have used a single-item to measure the perceptions of health status. Although single-item measures have much to offer in terms of face validity, their dependability is limited by the psychometric weaknesses that plague all single-item measures.

Despite its limitations, results suggest that the practice of meditation, reiki and yoga may be associated with psychological benefits, such as higher spiritual well-being, higher satisfaction with life and higher perception of health status.

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Table 1

Intercorrelations of and between target variables in the total sample (N = 345)

	1	2	3	4	5	6	7	8	9	10	11
1. H	-										
2. Hp	.88**	-									
3. Ha	.87**	.53**	-								
4. MH	.28**	.20**	.29**	-							
5. SWL	.39**	.26**	.42**	.45**	-						
6. SWB	.37**	.29**	.36**	.25**	.32**	-					
7. SWBp	.45**	.36**	.44**	.41**	.42**	.80**	-				
8. SWBc	.34**	.29**	.32**	.17**	.32**	.73**	.65**	-			
9. SWBe	.23**	.19**	.22**	.07	.13*	.81**	.52**	.47**	-		
10. SWBt	.22**	.15**	.24**	.19**	.24**	.84**	.52**	.41**	.56**	-	
11. SE	.45**	.35**	.43**	.48**	.44**	.51**	.28**	.21**	.27**	.38**	-

Note. *H* = Hope, *Hp* = Hope pathways subscale*; Ha* = Hope agency subscale, *MH* = Mental health*, SWL* = Satisfaction with life, *SWB* = Spiritual well-being, *SWBp* = Spiritual well-being personal subscale*, SWBc* = Spiritual well-being communitary subscale*, SWBe* = Spiritual well-being environmental subscale, *SWBt* = Spiritual well-being transcendental subscale*, SE* = Self-esteem.
**$p < .01$ * $p < .05$

Table 2

Mean scores, standard deviations and differences between gender on the target variables (N = 345)

	M	*SD*	*p*
H			
Male	52.83	5.04	.787
Female	53.02	5.65	
Hp			
Male	26.80	3.28	.308
Female	27.22	3.15	
Ha			
Male	25.99	2.72	.679
Female	25.82	3.22	
MH			
Male	21.51	3.95	.950
Female	21.54	3.98	
SWL			
Male	25.67	4.86	.428
Female	26.17	4.95	
SWB			
Male	72.05	10.84	.008*
Female	75.77	11.02	
SWBp			
Male	18.62	2.71	.140
Female	19.17	3.21	
SWBc			
Male	18.79	2.46	.102
Female	19.33	2.62	
SWBe			
Male	18.32	3.60	.004*
Female	19.65	3.58	
SWBt			
Male	16.32	4.89	.021*
Female	17.69	4.56	
SE			
Male	32.98	3.90	.404
Female	33.43	4.38	

Note. H = Hope, *Hp* = Hope pathways subscale*; Ha* = Hope agency subscale, *MH* = Mental health*, SWL* = Satisfaction with life, *SWB* = Spiritual well-being, *SWBp* = Spiritual well-being personal subscale*, SWBc* = Spiritual well-being communitary subscale*, SWBe* = Spiritual well-being environmental subscale, *SWBt* = Spiritual well-being transcendental subscale*, SE* = Self-esteem.

* $p < .05$

Table 3

Intercorrelations of and between target variables in the practitioner (N = 173) and non practitioner (N = 172) groups

	1	2	3	4	5	6	7	8	9	10	11
1. H											
pg	1										
npg	1										
2. Hp											
pg	.89**	1									
npg	.86**	1									
3. Ha											
pg	.88**	.57**	1								
npg	.86**	.47**	1								
4. MH											
pg	.30**	.26**	.27**	1							
npg	.26**	.13	.30**	1							
5. SWL											
pg	.39**	.28**	.42**	.44**	1						
npg	.38**	.22**	.42**	.46**	1						
6. SWB											
pg	.45**	.36**	.44**	.35**	.36**	1					
npg	.29**	.19*	.31**	.16*	.22**	1					
7. SWBp											
pg	.44**	.36**	.42**	.45**	.46**	.83**	1				
npg	.46**	.33**	.46**	.37**	.33**	.77**	1				
8. SWBc											
pg	.38**	.30**	.38**	.27**	.32**	.77**	.66**	1			
npg	.28**	.25**	.23**	.06	.27**	.68**	.59**	1			
9. SWBe											
pg	.33**	.28**	.31**	.15	.12	.74**	.48**	.43**	1		
npg	.13	.08	.15*	-.02	.03	.79**	.49**	.43**	1		
10. SWBt											
pg	.26**	.20**	.26**	.26**	.24**	.81**	.53**	.43**	.45**	1	
npg	.16*	.07	.21**	.12	.15	.79**	.42**	.30**	.46**	1	
11. SE											
pg	.44**	.41**	.37**	.41**	.47**	.41**	.49**	.32**	.20**	.28*	1
npg	.45**	.27**	.49**	.53**	.40**	.37**	.54**	.22**	.19*	.25**	1

Note. H = Hope, *Hp* = Hope pathways subscale*; Ha* = Hope agency subscale, *MH* = Mental health*, SWL* = Satisfaction with life, *SWB* = Spiritual well-being, *SWBp* = Spiritual well-being personal subscale*, SWBc* = Spiritual well-being communitary subscale*, SWBe* = Spiritual well-being environmental subscale, *SWBt* = Spiritual well-being transcendental subscale*, SE* = Self-esteem, *pg* = Practitioner group, *npg* = Non practitioner group.

**$p < .01$ * $p < .05$

Table 4

Mean scores, standard deviations and differences between the practitioner and non practitioner groups on the target variables

	M	*SD*	*p*
H			
pg	53.38	5.83	.162
npg	52.55	5.13	
Hp			
pg	27.38	3.33	.126
npg	26.86	2.99	
Ha			
pg	26.01	3.24	.357
npg	25.70	2.98	
MH			
pg	21.76	3.78	.250
npg	21.27	4.15	
SWL			
pg	26.81	4.71	.003*
npg	25.23	5.08	
SWB			
pg	79.80	9.93	.000**
npg	70.02	10.00	
SWBp			
pg	19.73	3.01	.000**
npg	18.35	2.72	
SWBc			
pg	19.75	2.62	.000**
npg	18.68	4.59	
SWBe			
pg	20.96	2.96	.000**
npg	17.74	3.53	
SWBt			
pg	19.38	3.99	.000**
npg	15.38	4.45	
SE			
pg	33.68	4.22	.135
npg	32.99	4.30	

Note. H = Hope, *Hp* = Hope pathways subscale*; Ha* = Hope agency subscale, *MH* = Mental health*, SWL* = Satisfaction with life, *SWB* = Spiritual well-being, *SWBp* = Spiritual well-being personal subscale*, SWBc* = Spiritual well-being communitary subscale*, SWBe* = Spiritual well-being environmental subscale, *SWBt* = Spiritual well-being transcendental subscale*, SE* = Self-esteem, *pg* = Practitioner group, *npg* = Non practitioner group.

**$p < .01$ * $p < .05$

Appendix.

Presented questionnaire to participants.

Este questionário enquadra-se no âmbito de um estudo comparativo dos níveis de autoestima, satisfação com a vida, esperança, espiritualidade e saúde mental entre praticantes e não praticantes de modalidades de Medicina Complementar e Alternativa (CAM), tais como: meditação, reiki e yoga. Pedia-se que respondesse a todas as questões, da forma mais honesta possível, sendo que o questionário é anónimo e as suas respostas serão tratadas de forma confidencial.

Muito obrigada desde já pela sua colaboração.

Idade:_____	Nível de escolaridade:_____
Género: Masculino ☐ Feminino ☐	Estado civil:_____

I

Leia cuidadosamente cada pergunta. Utilizando a escala abaixo mencionada, por favor selecione o número que melhor o descreve e coloque esse número em cima do traço de cada pergunta.

1 = Totalmente Falso; 2 = Quase totalmente Falso; 3 = Em grande parte Falso; 4 = Ligeiramente Falso; 5 = Ligeiramente Verdadeiro; 6 = Em grande parte Verdadeiro; 7 = Quase totalmente Verdadeiro; 8 = Totalmente Verdadeiro

A. Consigo pensar em várias maneiras de me desenrascar.____

B. Tento alcançar incansavelmente os meus objetivos. ____

C. Sinto-me cansado(a) a maior parte do tempo. ____

D. Existem vários caminhos para ultrapassar um problema. ____

E. Sou facilmente dominado(a)/derrotado(a) numa discussão. ____

F. Consigo pensar em várias maneiras de ter as coisas que acho importantes para mim. ____

G. Preocupo-me com a minha saúde. ____

H. Mesmo quando os outros se sentem desencorajados, eu sei que posso encontrar um caminho para resolver um problema. ____

I. A minha experiência passada preparou-me bem para o futuro. ____

J. Tenho sido bem-sucedido(a) na vida. ____

K. Normalmente ando preocupado(a) com alguma coisa. ____

L. Alcanço os objetivos que estabeleço para mim. ____

II

A **espiritualidade** pode descrever-se como algo que reside no íntimo do ser humano.
A **saúde espiritual** pode ser vista como um indicador do quão bem nos sentimos connosco próprios e com os aspetos que valorizamos no mundo que nos rodeia. Para cada uma das afirmações seguintes, assinale com uma cruz o número que melhor indique em que medida sente que cada afirmação **reflete a sua experiência pessoal nos últimos 6 meses.**

Responda utilizando a seguinte escala:
1= muito pouco 2= pouco 3= moderadamente 4= muito 5= muitíssimo

Se lhe parecer mais adequado, pode substituir a palavra "Deus" por "Força Cósmica", "Universo" ou outra expressão idêntica, cujo significado seja mais relevante para si.
Não perca muito tempo em cada afirmação. A **primeira resposta é** provavelmente a mais adequada para si.

Em que medida você se sente a desenvolver:
1.afeto pelas outras pessoas

Não se aplica (0)	Muito pouco (1)	Pouco (2)	Moderadamente (3)	Muito (4)	Muitíssimo (5)

2. uma relação pessoal com o Divino ou Deus

Não se aplica (0)	Muito pouco (1)	Pouco (2)	Moderadamente (3)	Muito (4)	Muitíssimo (5)

3. generosidade em relação aos outros

Não se aplica (0)	Muito pouco (1)	Pouco (2)	Moderadamente (3)	Muito (4)	Muitíssimo (5)

4. uma ligação com a natureza

Não se aplica (0)	Muito pouco (1)	Pouco (2)	Moderadamente (3)	Muito (4)	Muitíssimo (5)

5. um sentimento de identidade pessoal

Não se aplica (0)	Muito pouco (1)	Pouco (2)	Moderadamente (3)	Muito (4)	Muitíssimo (5)

6. admiração e respeito pela Criação

Não se aplica (0)	Muito pouco (1)	Pouco (2)	Moderadamente (3)	Muito (4)	Muitíssimo (5)

Desenvolver:

7. espanto e admiração perante uma paisagem deslumbrante

Não se aplica (0)	Muito pouco (1)	Pouco (2)	Moderadamente (3)	Muito (4)	Muitíssimo (5)

8. a confiança entre as pessoas

Não se aplica (0)	Muito pouco (1)	Pouco (2)	Moderadamente (3)	Muito (4)	Muitíssimo (5)

9. auto-conhecimento

Não se aplica (0)	Muito pouco (1)	Pouco (2)	Moderadamente (3)	Muito (4)	Muitíssimo (5)

10. um sentimento de união com a natureza

Não se aplica (0)	Muito pouco (1)	Pouco (2)	Moderadamente (3)	Muito (4)	Muitíssimo (5)

11. o sentimento de união com Deus

Não se aplica (0)	Muito pouco (1)	Pouco (2)	Moderadamente (3)	Muito (4)	Muitíssimo (5)

12. uma relação de harmonia com o ambiente

Não se aplica (0)	Muito pouco (1)	Pouco (2)	Moderadamente (3)	Muito (4)	Muitíssimo (5)

13. um sentimento de paz com Deus

Não se aplica (0)	Muito pouco (1)	Pouco (2)	Moderadamente (3)	Muito (4)	Muitíssimo (5)

Desenvolver:

14. alegria na vida

Não se aplica (0)	Muito pouco (1)	Pouco (2)	Moderadamente (3)	Muito (4)	Muitíssimo (5)

15. uma vida de meditação e/ou oração

Não se aplica (0)	Muito pouco (1)	Pouco (2)	Moderadamente (3)	Muito (4)	Muitíssimo (5)

16. paz interior

Não se aplica (0)	Muito pouco (1)	Pouco (2)	Moderadamente (3)	Muito (4)	Muitíssimo (5)

17. respeito pelas outras pessoas

Não se aplica (0)	Muito pouco (1)	Pouco (2)	Moderadamente (3)	Muito (4)	Muitíssimo (5)

18. um sentido para a vida

Não se aplica (0)	Muito pouco (1)	Pouco (2)	Moderadamente (3)	Muito (4)	Muitíssimo (5)

19. bondade para com os outros

Não se aplica (0)	Muito pouco (1)	Pouco (2)	Moderadamente (3)	Muito (4)	Muitíssimo (5)

20. uma sensação de deslumbramento pela natureza

Não se aplica (0)	Muito pouco (1)	Pouco (2)	Moderadamente (3)	Muito (4)	Muitíssimo (5)

III

Abaixo vai encontrar um conjunto de questões acerca do modo como se sente no dia-a-dia. Responda a cada uma delas assinalando num dos quadrados por baixo a resposta que melhor se aplica a si. *1 = Sempre; 2 = Quase sempre; 3 = A maior parte do tempo; 4 = Durante algum tempo; 5 = Quase nunca; 6 = Nunca.*

1- Durante quanto tempo, no mês passado se sentiu muito nervoso?____

2 - Durante quanto tempo, no mês que passou, se sentiu calmo e em paz?____

3 - Durante quanto tempo, no mês que passou, se sentiu triste e em baixo?____

4 - Durante quanto tempo, no mês que passou, se sentiu triste e em baixo, de tal modo que nada o conseguia animar?____

5 - No último mês durante quanto tempo se sentiu uma pessoa feliz?____

IV

Abaixo encontra-se um conjunto de informações relacionadas com sentimentos gerais acerca de si mesmo. Assinale a opção que corresponde ao seu nível de concordância com a mesma.

1. Sinto que sou uma pessoa de valor, pelo menos tanto quanto as outras pessoas.

Concordo inteiramente	Concordo	Discordo	Discordo inteiramente

2. Sinto que tenho muitas qualidades.

Concordo inteiramente	Concordo	Discordo	Discordo inteiramente

3. Considerando bem as coisas, sinto que sou um fracasso.

Concordo inteiramente	Concordo	Discordo	Discordo inteiramente

4. Sou capaz de fazer as coisas tão bem como as outras pessoas.

Concordo inteiramente	Concordo	Discordo	Discordo inteiramente

5. Sinto que não tenho muito de que me orgulhar.

Concordo inteiramente	Concordo	Discordo	Discordo inteiramente

6. Tenho uma atitude positiva em relação a mim próprio.

Concordo inteiramente	Concordo	Discordo	Discordo inteiramente

7. Globalmente, estou satisfeito comigo próprio.

Concordo inteiramente	Concordo	Discordo	Discordo inteiramente

8. Gostaria de sentir mais respeito por mim próprio.

Concordo inteiramente	Concordo	Discordo	Discordo inteiramente

9. Às vezes sinto-me inútil.

Concordo inteiramente	Concordo	Discordo	Discordo inteiramente

10. Às vezes sinto que não sou bom em nada.

Concordo inteiramente	Concordo	Discordo	Discordo inteiramente

V

A seguir estão cinco afirmações com as quais pode concordar ou discordar. Utilizando a escala 1-7 em baixo, indique o seu grau de acordo com cada item colocando o número apropriado na linha que precede esse item. Por favor, seja sincero e honesto na sua resposta. A escala de 7 pontos é: *1=fortemente em desacordo; 2=desacordo; 3=levemente em desacordo; 4=nem de acordo nem em desacordo; 5=levemente de acordo; 6=acordo; 7=fortemente de acordo.*

1. Em muitos aspetos, a minha vida aproxima-se dos meus ideais.____
2. As minhas condições de vida são excelentes.____
3. Estou satisfeito(a) com a minha vida.____
4. Até agora consegui obter aquilo que era importante na vida.____
5. Se pudesse viver a minha vida de novo, não alteraria praticamente nada.____

VI

1. É praticante de meditação, reiki, yoga ou outra modalidade de medicina complementar e alternativa? ____

2. Caso tenha respondido que sim à questão anterior, responda à alínea 2.1., caso contrário avance para a questão 3.
   2.1. Qual, ou quais, a(s) modalidade(s) que pratica?_____

3. Como avalia a sua saúde?

1 - Fraca	2 - Razoável	3 - Boa	4 – Muito boa	5 - Ótima

Terminou o questionário. Verifique, por favor, se respondeu a todas as questões.

Muito obrigado pela colaboração!